ABSTRACT

A tire molding apparatus and technique is provided for the ventless molding of tires. According to the invention, a series of pitches is formed in an appropriate REN board, plaster, or like material with the implementation of a CNC machine. An aluminum pour casting is made from the model in which the various pitches are separated by voids which allow for the entry of a cutting tool such that each individual pitch or tire tread segment can be cut from the aluminum casting. Sipe locations are then cut into the model. Master rubbers or foundry tooling is then created and the castings poured. The individual pitches are then matingly interengaged in a puzzle-like fashion along the interior of a tire mold to define the tread portion of the mold. Venting of the mold is achieved at the pitch line formed at the intersection of each of the pitches.